

1. Tube having in its radial direction, from the inside to the outside, a so-called inner layer based on a fluoro-resin (or fluoropolymer) and intended to come into contact with a flowing fluid, characterized in that the inner layer is formed from a blend comprising a semicrystalline thermoplastic fluoro-resin and an ABC triblock copolymer, the three blocks A, B and C being linked together in this order, each block being either a homopolymer or a copolymer obtained from two or more monomers, the A block being linked to the B block and the B block to the C block by means of a covalent bond or of an intermediate molecule linked to one of these blocks via a covalent bond and to the other block via another covalent bond, and in that:

- the A block is compatible with the fluoro-resin,
- the B block is incompatible with the fluoro-resin and is incompatible with the A block, and
- the C block is incompatible with the fluoro-resin, the A block and the B block.

2. Tube according to Claim 1, ^{wherein} characterized in that it is a bilayer and comprises an outer layer made of polyamide or of a polyamide/polyolefin blend having a polyamide matrix, the inner layer and the polyamide or polyamide-matrix layer being fastened together.

3. Tube according to Claim 1, characterized in that it is a bilayer and comprises an outer layer made of polyamide or of a polyamide/polyolefin blend having a polyamide matrix, the inner layer and the polyamide or polyamide-matrix layer being fastened together by the addition of a functional acrylic compound to the blend of the inner layer.

4. Tube according to Claim 1, characterized in that it is a trilayer and comprises an outer layer made of polyamide or of a polyamide/polyolefin blend having a polyamide matrix, the inner layer and the polyamide or polyamide-matrix layer being fastened together by an adhesion binder placed between them.

5. Tube according to Claim 1, characterized in that it is a multilayer and comprises a layer made of polyamide or of a polyamide/polyolefin blend having a polyamide matrix, the inner layer and the polyamide or polyamide-matrix layer being fastened together by a succession of intermediate layers, each of which is fastened to its adjacent layers.

6. Tube according to ~~one of Claims 1 to 5~~ characterized in that the ABC triblock copolymer contains, as by-products of its synthesis, a BC diblock copolymer and possibly C homopolymer.

7. Tube according to ~~one of Claims 1 to 6~~, characterized in that the ABC triblock copolymer contains, as by-products of its synthesis, an AB diblock copolymer and possibly some A homopolymer.

8. Tube according to ~~one of Claims 1 to 7~~, characterized in that the blend of the inner layer contains a dispersed electrically conductive carbon black filler in an amount sufficient to give this inner layer a surface resistivity of less than or equal to $10^9 \Omega/\square$ and preferably less than or equal to $10^6 \Omega/\square$.

9. Tube according to ~~one of Claims 1 to 8~~, characterized in that the blend of the semicrystalline thermoplastic fluoro-resin and the ABC triblock copolymer, possibly with the by-products of its synthesis, contains at least 50% and preferably from 70 to 97% by weight of semicrystalline thermoplastic fluoro-resin(s) and the balance (to 100%) by weight of the triblock copolymer of number-average molecular mass (M_n) greater than or equal to $20,000 \text{ g.mol}^{-1}$ and preferably between $50,000$ and $200,000 \text{ g.mol}^{-1}$, possibly with its by-products, consisting of:

- 20 to 93 and preferably 30 to 70 parts by weight of A sequences,
- 5 to 68 and preferably 10 to 40 parts by weight of B sequences,
- 2 to 65 and preferably 5 to 40 parts by weight of C sequences,

the percentages being calculated with respect to the total weight of fluoro-resin(s) with the block copolymer and possibly its by-products, without taking into account in these percentages the optional presence of other additives.

10. Tube according to ~~one of Claims 1 to 9~~, characterized in that the fluoro-resin is chosen from:

- homopolymers and copolymers of vinylidene fluoride (VF2) preferably containing at least 50% by weight of VF2 and at least one other fluoromonomer, such as chlorotrifluoroethylene (CTFE), hexafluoropropylene (HFP), trifluoroethylene (VF3) and tetrafluoroethylene (TFE);

- homopolymers and copolymers of trifluoroethylene (VF3);

- copolymers, and especially terpolymers, combining the residues of chlorotrifluoroethylene (CTFE), tetrafluoroethylene (TFE) or hexafluoropropylene (HFP) units and/or ethylene and possibly VF2 and/or VF3 units.

11. Tube according to Claim 10, characterized in that the fluoro-resin is poly(vinylidene fluoride) (PVDF).

12. Tube according to ~~one of Claims 1 to 11~~, characterized in that the B block has a glass transition temperature $T_{g(B)}$, measured by differential thermal analysis, ranging from -100°C to -50°C .

13. Tube according to ~~one of Claims 1 to 12~~, characterized in that the B block is chosen from polydienes, especially polybutadiene, polyisoprene and their random copolymers, or else from polydienes, especially polybutadiene,

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polyisoprene and their random copolymers, that are partially or completely hydrogenated.

14. Tube according to one of Claims 1 to 13, characterized in that the C block has a glass transition temperature $T_{g(C)}$ or a melting point $T_{m(C)}$ greater than the $T_{g(B)}$ of the B-block.

15. Tube according to one of Claims 1 to 14, characterized in that the A block is chosen from homopolymers and copolymers of alkyl (alkyl)acrylates, for example methyl methacrylate (MMA) and/or methyl or ethyl acrylate and/or those deriving from vinyl acetate.

16. Tube according to one of Claims 1 to 15, characterized in that the A block is poly(methyl methacrylate) (PMMA).

17. Tube according to Claim 16, characterized in that the PMMA is syndiotactic and its glass transition temperature $T_{g(A)}$, measured by differential thermal analysis, is from + 120°C to + 140°C.

18. Tube according to one of Claims 1 to 17, characterized in that the ABC triblock is poly(methyl methacrylate-*b*-butadiene-*b*-styrene).

19. Quadrilayer tube according to one of Claims 1 to 18, characterized by the following structure:

PA/binder/fluoropolymer/fluoropolymer + ABC triblock + electrically conductive carbon black.

20. Quadrilayer tube according to one of Claims 1 to 18, characterized by the following structure:

PA/binder/fluoropolymer + ABC triblock/fluoropolymer + ABC triblock + electrically conductive carbon black.

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